



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/624,820

07/21/2003

John H. Rallis

P3179

7373

30143

7590

10/20/2008

TODD N. HATHAWAY

119 N. COMMERCIAL ST. #620

BELLINGHAM, WA 98225

EXAMINER

ADAMS, GREGORY W

ART UNIT

PAPER NUMBER

3652

MAIL DATE

DELIVERY MODE

10/20/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. "Sufficient length" is indeterminate: If a length is calculated on rows of multiple pallets what is a length if a load is a single pallet? How many pallets form "rows of multiple pallets"? How does one know how big a single pallet? Is pallet size an industry standard well known to the art? And, because the drawings don't show rows of multiple pallets on feed or load conveyors it is unclear whether this is intended to be part of the claims or merely intended use. Clarification of this limitation is respectfully requested.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 & 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Staeger (DE 4309338 C2) (previously cited) in view of Atwater (US 3,661,280) (previously cited) and further in view of Suizu (US 3,921,828) (previously cited) and Proske (US 5,615,992).

With respect to claims 1-3 & 6, Staege discloses a warehousing system comprising:

- a traveling conveyor of sufficient length to support rows of multiple pallets, either simultaneously or individually using forks;
- a plurality of storage racks (FIG. 4);
- a traveling conveyer comprising-
  - means 2.2.1.4 for propelling loads on/off a first or second end;
  - an elongate, generally horizontal deck 2.2.1.2, 2.2.1.4 for supporting rows of multiple pallets that form individual loads; means for elevating (FIG. 4) and means 2.2.1.4 for propelling rows of pallets in a generally horizontal direction relative to an elongate deck.

Stage further discloses that traveling conveyor 2 moves parallel to a loading edge alignment with a storage rack, and appears to disclose two parallel guides on a floor in FIG. 2. Staege does not explicitly disclose means for selectively moving a conveyor, and a feed conveyor and loading/unloading conveyor.

Atwater's means 44 are the functional equivalent of a means moving between locations (i-iii). Atwater discloses a warehousing system comprising-

- a feed conveyer branch 30;
- an unloading conveyer 26, 32, 28a;
- a traveling conveyor 16 including means 70, 72 for propelling loads on/off a traveling conveyor of first or second ends.

- and further including means 44 for selectively moving a traveling conveyer between:
  - (i) a location in which a traveling conveyer 16 is aligned with a feed conveyer 24 for receiving cargo from a feed conveyor;
  - (ii) locations in which a traveling conveyor is aligned a storage racks 12 for discharging palletized cargo to storage racks; and
  - (iii) a location in which a traveling conveyor is aligned with a loading conveyor 26 for receiving or discharging cargo to an unloading conveyor.

Atwater teaches an automatic warehousing system for storing and unstoring loads having means as noted above such that an operator can pick orders as well as stock/unstock a rack. C1/L20-25. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Staeger to include means for selectively moving a traveling conveyor, as per the teachings of Atwater, to allow simultaneous picking and stocking/unstacking.

Suizu discloses a traveling conveyor 22, 23 in combination with a feed conveyor 42, storage racks 1, load conveyor 43 that is connected to a loading dock 56, each comprising an elongate generally horizontal end portion having sufficient length to support multiple pallets that form individual loads of palletized cargo. Suizu further discloses aligning a traveling conveyor deck 22, 31, 23, 35 (C4/L38-C5/L28) that aligns longitudinally (in the direction of pallet travel). Suizu teaches a storage rack system combined with infeed and load conveyors to improve on automation within the well

known art of warehousing by improving on efficiencies of rate of storage and retrieval of palletized loads. C1. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Staege to include a traveling conveyor in combination with a feed conveyor, storage racks, load conveyor connected to a loading dock, each comprising an elongate generally horizontal end portion having sufficient length to support multiple pallets that form individual loads of palletized cargo and a longitudinally alignable traveling conveyor, as per the teachings of Suizu, improve on the in/out times for a warehouse.

Proske discloses traveling conveyor means 11, 12, 13, 14, 15 (C10/L5-20) for propelling loads in a first (generally indicated as 17) and second (generally indicated as 18) generally horizontal directions relative to an elongate deck so as to be able to move rows of pallets off first or second ends of an elongate deck. Proske teaches a traveling conveyor in combination with feed and load conveyors and storage racks to reduce costs in warehousing. C1. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Staege to include means for propelling loads in a first or second direction, as per the teachings of Proske, to reduce warehousing costs.

With respect to a “sufficient length to support rows of multiple pallets that form individual loads of said palletized cargo”, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Under the broadest, the examiner notes that a load may comprise rows of multiple pallets but they can load individually, e.g. one at a time. Applicant may consider it novel to have a feed conveyor, storage racks, loading conveyor and traveling conveyor each having sufficient length to support and load in one operation individual loads comprising rows of multiple pallets simultaneously but that is not the only interpretation available from the intended use recitation.

It has been held that the functional “whereby” statement does not define any structure and accordingly can not serve to distinguish. *In re Mason*, 114 USPQ 127, 44 CCPA 937 9957).

With respect to claim 5, Staeger discloses a traveling conveyor deck that is movable, and does not explicitly disclose wheeled chassis and a track. Atwater discloses a wheeled chassis 44 and a track 46 for guiding a wheeled chassis between locations in which a palletized cargo is received or discharged. Atwater teaches an automatic warehousing system for storing and unstoring loads such that an operator can pick orders as well as stock/unstock racks. C1/L20-25. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Staeger to include a wheeled chassis and track, as per the teachings of Atwater, to allow simultaneous picking and stocking/unstacking.

Claims 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Staeger in view of Atwater and Suizu and further in view of Carder et al. (US 4,304,518) (previously cited). Staeger does not disclose a scissor jack mechanism. Carder discloses a traveling conveyor 34, 36 having a scissor jack mechanism 22, 24 which are more

reliable in maintaining alignment between a traveling conveyor and a delivery location such as a second conveyor or airplane. C1/L5-20. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the lift of Stage to include a scissor jack mechanism, as per the teachings of Carder et al., to improve on alignment reliability.

Claims 7-8, 10-11 & 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Staeger in view of Atwater, Suizu and Proske and further in view of Tharpe (US 5,887,699) (previously cited).

With respect to claims 7-8, Staeger does not disclose a diverter. Tharpe discloses a feed conveyor 40 comprising a branch portion 40 which diverges from a main portion 14, means for selectively diverting pallets comprising a sweep arm 52 and means 56 for selectively extending a sweep arm 56 to identify individual articles being conveyed along a primary conveyor and sorting selected articles for distribution along secondary conveyors extending in a direction lateral to the primary conveyor. Cols. 1-2. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to the invention of Staeger to include a diverter, as per the teachings of Tharpe, to sort items and direct them to separate them according to the portion of feed conveyor they are designated for.

With respect to claims 10-11 & 14, Thornton discloses a rigid, extensible dock member having an upper surface 71 for supporting a load of palletized cargo; means 155 for extending a dock member into an interior of a transport vehicle 11 so as to carry a load of palletized cargo 7 into or out of a transport vehicle en masse; and means 191



for selectively restraining a load of palletized cargo within a vehicle interior as an extensible dock member is withdrawn therefrom. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Weir's dock member to include means for restraining, as per the teachings of Thornton, such that during dock member removal a load remains in a truck.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Staege in view of Atwater, Suizu and Proske and further in view of Ringer (US 4,093,084) (previously cited). Staege does not disclose a bypass portion with means for displacement. Ringer discloses a bypass segment 21 to connect branch portions to an unloading conveyor and means for displacing a bypass segment because interconnecting multiple incoming transport vehicles, i.e. trains, with multiple outgoing transport vehicles minimizes loading/unloading time because loads are routed directly to without intermediate storage, unless said intermediate storage is necessary. Cols. 1-2. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Staege to include a bypass portion with means for displacement, as per the teachings of Ringer, such that loading/unloading time is minimized because loads are sent directly from an inbound vehicle to an outbound vehicle without intermediate steps.

Claims 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Staege in view of Atwater, Suizu and Proske and Thornton and further in view of Barski (US 3,042,230) (previously cited). Barski discloses a push plate 23 and means 20 for extending a push plate for shifting stacks of cases from one conveyor to a second

conveyor minimizing canting of stacks. Col. 1. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Staeger's apparatus to include a push plate and means for extending, as per the teachings of Barski, such that stacks of cases may be transferred from one conveyor to a second without a need for canting of stacks.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Staeger in view of Atwater, Suizu and Proske and Thornton and further in view of Winski (US 5,562,403) (previously cited). Winski discloses an unloading paddle 34, means for selectively moving a paddle 36 and means for translating an unloading paddle (C7/L63 – C8/L20) such that when mounted to a vehicle which repositions shippable goods selectively pushing objects from one conveyor to a second provides for different production steps to take place. Cols. 1-2. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Staeger's system to include a paddle and means for selectively moving a paddle, as per the teachings of Winski, such that goods can be moved from one conveyor to a second.

Claims 16-18 & 22-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holtz (US 6,056,497) (previously cited) in view of Thornton (US 5,054,987) (previously cited) and Lang (US 4,170,292) (previously cited).

With respect to claims 16-18 & 22, Holtz discloses a paddle 40 and means 26 for translating an unloading paddle in a deployed position from an outer end of an extensible dock member to proximate an inner end of a deck member, so as to push a palletized cargo off of an extensible dock member and onto a loading/unloading

conveyor at an inner end of a dock member. Holtz does not disclose a dock member and means for extending a dock member into a transport vehicle, restraining means and means for moving a paddle between retracted and extended positions.

Thornton discloses-

- a rigid, extensible dock member 1 having an upper surface, a beveled edge and a thin rigid plate member 41;
- means 13 for extending said dock member into an interior of a transport vehicle so as to carry said load of palletized cargo into or out of said transport vehicle en masse; and
- means 191 for selectively restraining said load of palletized cargo within said interior of said vehicle as said extensible dock member is withdrawn therefrom;

Thornton teaches loading trucks over individual loaders uses a lower profile and reduces dock modifications. C1/L25-40. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Holtz to include a dock member and means for extending and restraining, as per the teachings of Thornton, to completely load or unload freight trailers.

Lang discloses means 13 for selectively moving an unloading paddle from a retracted position in which an unloading roller 60 is positioned beneath an upper surface (indicate generally as 50) of an extensible dock member, to a deployed position in which an unloading paddle projects above an upper surface of an extensible dock member proximate an outer end of a dock member. Lang improves on means for selective

transfer such as Holtz's by reducing dirt and other abrasive material which "occasionally clogs and causes wear to paddle tracks." C1/L15-30. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Holtz to include means for moving an unloading paddle, as per the teachings of Lang, to reduce wear causing dirt and abrasive material.

With respect to claims 23-26, Thornton discloses-

- drive means 5 for translating a plate member into an out of a vehicle;
- discloses rollers 71, 75;
- rollers spaced distances from inner and outer ends;
- and ball bearings (C6/L25-50).

Thornton teaches loading trucks over individual loaders uses a lower profile and reduces dock modifications. C1/L25-40. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Holtz as per the teachings of Thornton to completely load or unload freight trailers.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Holtz in view of Thornton, Lang and Barski (US 3,042,230) (previously cited). Holtz does not disclose a push plate or means for extending a push plate. Barski discloses a push plate 23 and means 20 for extending a push plate for shifting stacks of cases from one conveyor to a second conveyor minimizing canting of stacks. Col. 1. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Thornton's system to include a push plate and means for extending a

push plate, as per the teachings of Barski, such that stacks of cases may be transferred from one conveyor to a second without a need for canting of stacks.

### ***Response to Arguments***

Applicant's arguments filed Sept. 18, 2008 have been fully considered but they are not persuasive. The examiner does not agree with Applicants interpretations. With respect to a "sufficient length to support rows of multiple pallets that form individual loads of said palletized cargo", a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Under the broadest, the examiner notes that a load may comprise rows of multiple pallets but they can load individually, e.g. one at a time. Applicant may consider it novel to have a feed conveyor, storage racks, loading conveyor and traveling conveyor each having sufficient length to support and load in one operation individual loads comprising rows of multiple pallets simultaneously but that is not the only interpretation available from the intended use recitation. It has been held that the functional "whereby" statement does not define any structure and accordingly can not serve to distinguish. *In re Mason*, 114 USPQ 127, 44 CCPA 937 9957).

Proske disclose traveling conveyor means to proper loads on (or off) both a first end and a second end. It is further noted that this is a well known feature in warehousing to have a traveling conveyor that traverses a center aisle depositing and

picking up a shelves spaced on either side of said aisle. And, Proske's rollers are the function equivalent of conveyor belts.

With respect to claim s 16-18 & 22-26, In response to applicant's argument that Lang's narrow unloading paddle would not push enough of Holz's pots, the fact that applicant has recognized a disadvantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). In addition, all references must be considered together to form the basis of what a skilled artisan would have known. And, it is respectfully noted that Lang is not cited as disclose a pusher paddle, and is cited for disclose a dock member and means for extending a dock member into a transport vehicle, restraining means and means for moving a paddle between retracted and extended positions. Because both Lang's and Holz's pusher connection means connects below a load surface, whether connected at either end or at the middle, Holz's paddle will still move translationally, the claimed invention.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GREGORY W. ADAMS whose telephone number is (571)272-8101. The examiner can normally be reached on M-Th, 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saul Rodriguez can be reached on (571) 272-7097. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Gregory W Adams/  
Primary Examiner, Art Unit 3652